

ABSTRACT

A device is described that may be positioned at a location in an intervertebral disc for diagnosis or treatment of the disc. Treatment may include, for example, applying energy or removing material, and may decrease intradiscal pressure. Radiofrequency energy may be applied. A percutaneous method of repairing a fissure in the annulus pulposus comprises placing an energy source adjacent to the fissure and providing sufficient energy to the fissure to raise the temperature to at least about 45-70°C and for a sufficient time to cause the collagen to weld. An intervertebral fissure also can be treated by placing a catheter with a lumen adjacent to the fissure and injecting sealant into the fissure via the catheter, thereby sealing the fissure. An intervertebral fissure additionally can be treated by providing a catheter having a distal end, a proximal end, a longitudinal axis, and an intradiscal section at the catheter's distal end on which there is at least one functional element. The next step is applying a force longitudinally to the proximal of the catheter which is sufficient to advance the intradiscal section through the nucleus pulposus and around an inner wall of an annulus fibrosus, but which force is insufficient to puncture the annulus fibrosus. Next the functional element is positioned at a selected location of the disc by advancing or retracting the catheter and optionally twisting the proximal end of the catheter. Then the functional unit treats the annular fissure. Optionally, there is an additional step of adding a substance to seal the fissure. An externally guidable intervertebral disc apparatus also is disclosed.

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